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OBJECTIVES: Patient adherence with hypertension therapy is a leading cause for uncontrolled blood pressure in the United States. The Anti-hypertensive Adherence Survey (aHA Survey) was developed as a patient self-reported assessment of therapy adherence. This study reports the psychometric properties and construct validity of the tool. **METHODS:** The aHA Survey was administered to hypertensive patients in a cross-sectional, non-interventional multisite study. The aHA Survey comprises 25 items organized within six domains: Knowledge (9 items), Medical Acceptance (3 items), Compliance (6 items), Finance (1 item), Willingness to Change (4 items) and Depression (2 items). The aHA scoring algorithm assigns points and designates intervention prompts based on patient's responses to individual items across each domain. Construct validity of the aHA Survey was evaluated using an extension of the 1-parameter Rasch model for polytomous response data when the items within a domain have unique rating domains and recall periods, the Partial Credit Model. Unidimensionality was evaluated for the full instrument and related scoring using goodness-of–fit statistics with an expected range between 0.60-1.40. Reliability of the scores was assessed using the Rasch person reliability estimate and the internal structure evaluated using Principal Components Analysis. **RESULTS:** A total of 273 patients ere included in the study (50.9% male, 89.7% Caucasian). Item fit was acceptable for all items on the aHA Survey. The overall reliability for aHA Survey was moderate to high (alpha = 0.84) and 33.3% of the underlying variance in adherence was measured by the items on the instrument. **CONCLUSIONS:** This study demonstrates the utility of measuring a multi-dimensional phenomenon such as adherence in patient's hypertensive therapy using a brief 25-item assessment. The current items and related scoring algorithm indicate good construct validity and reliability; which is imperative for clinical utility. Validation against real-world data will be considered in the next phase of research.

PCV103

ESTIMATING THE IMPACT OF ADHERENCE TO ALLOPURINOL THERAPY ON CARDIOVASCULAR OUTCOMES IN GOUT PATIENTS USING THE HEALTH IMPROVEMENT NETWORK (THIN) GENERAL PRACTICE DATABASE

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OBJECTIVES: Gout is one of the most common inflammatory arthritides; it is commonly managed in primary care in the UK and has been associated with poor cardiovascular (CV) outcomes. Allopurinol use has been associated with improved outcomes, particularly at a higher dose (>600mg/day); however, published studies have shown that prescribed doses in the UK are 300mg or less. Adherence to allopurinol has not been well evaluated in the UK; we estimate the impact of adherence to allopurinol on CV in gout patients in the UK. **METHODS:** The Health Improvement Network (THIN) database from 1990 to 2009 was examined; patients aged 18+ were identified using Read and drug codes. The CV-related outcomes were myocardial infarction (MI), heart failure, stroke, peripheral thrombosis, angina and coronary artery bypass. Adherence was measured using proportion of days covered (PDC). Descriptive statistics were calculated and Kaplan-Meir survival curves were constructed for different levels of adherence (PDC in quartiles). Analyses were performed in a subset of patients that experienced a particular CV event during the observation period. **RESULTS:** A total of 91,665 gout patients were identified, 39,747 of which were prescribed allopurinol; of these, 9% had MI, 18% had heart failure, 15% had stroke, 4% had thrombosis, 16% had angina and 5% had coronary artery bypass. Mean PDC in patients prescribed with allopurinol was 0.72 (SD±0.28). Higher PDC was associated with increased survival time in all CV events except for angina. PDC > 0.75 resulted in substantially greater survival time. High adherence has the greatest impact in MI and coronary artery bypass. **CONCLUSIONS:** Greater adherence to allopurinol appears to be associated with better CV outcome in all conditions except angina. A more profound effect in PDC higher than 0.75 suggests that high adherence is needed to achieve clinical benefit.

PCV104

PERSISTENCE IN HYPERTENSION TREATMENT WITH OLMESARTAN MEDOXOMIL VERSUS VALSARTAN - ANALYSIS OF REAL-LIFE PRESCRIPTION DATA IN GERMANY

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OBJECTIVES: To evaluate treatment persistence in patients receiving fixed-dose combinations or unfixed combinations with olmesartan medoxomil (OLM) or valsartan (VAL) for hypertension treatment in Germany. **METHODS:** This retrospective study analyzed prescription data collected by general practitioners, using a longitudinal database, the German IMS Disease Analyzer (DA). The DA database was searched for patients with hypertension (ICD-10 code I10) who were initiated on OLM or VAL in double combinations with hydrochlorothiazide (HCT) or amlodipine (AML) in the period 09/2008 to 08/2009 with a follow-up of at least 12 months. Persistence was defined as proportion of patients who remained on their initially prescribed therapy at 1 year. **RESULTS:** In total, 2882 patients were eligible for analysis (1079 patients receiving OLM, thereof 75.2% with fixed-dose combinations; 1803 patients receiving VAL, thereof 88.5% with fixed combinations). 12 months after the first prescription, more patients receiving OLM stayed on their initial therapy compared to VAL: unfixed combination with AML 27.4% vs. 25.2%; fixed-dose combination with AML 47.3% vs. 44.6%; unfixed combination with HCT 25.0% vs. 13.7%; fixed-dose combination with HCT 44.6% vs. 39.6%. Mean duration of persistence in patients receiving OLM compared to VAL group was: 183.6 [SD 163.5] days vs. 181.2 [SD 159.8] days in unfixed combinations with AML; 235.7 [SD 167.8] days vs. 234.6 [SD 165.0] days in fixed-dose combinations with AML; 184.0 [SD 155.4] days vs. 123.4 [SD 138.9] days in unfixed combinations with HCT; 228.5 [SD 167.8] days vs. 222.9 [SD 165.6] days in fixed-dose combinations with HCT. **CONCLUSIONS:** Overall, findings based on real-life prescription data suggest better patient persistence with unfixed and fixed-dose OLM combinations compared to respective VAL combinations. In terms of persistance not all angiotensin receptor blockers perform equal rather hint at patient-individual treatment. Further research is needed to confirm these first results.

PCV105

USING THEORY OF REASONED ACTION VARIABLES TO PREDICT AND IMPROVE STATIN ADHERENCE

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OBJECTIVES: Patient adherence with prevention and treatment of chronic disease is challenging. Communication theory has potential to improve effectiveness of interventions to improve adherence. This study used Theory of Reasoned Action (TRA) variables to examine behavioral, normative injunctive and control beliefs associated with statin adherence; association of beliefs with intentions and adherence; and variation among subgroups (sex, race, treatment duration, primary vs. secondary prevention). **METHODS:** Cardiology and primary care academic health system patients prescribed statins January 2007 to December 2009 (n=101,492). Elicitation Study: Semi-structured telephone interviews (n=40). Mail Survey: Random sample stratified by race and prior CVD events (N=1829). Causal path regression coefficients were compared using multi-group structural equation modeling, stratified by race, gender and age. **RESULTS:** Elicitation Study: Respondents perceived statin therapy as beneficial and reported supportive social norms and good self-efficacy. Adherence failure was associated primarily with inability to act on intentions rather than lack of intention. Mail Survey: Response=50.2%; (53% male, 61% CVD event; 39% AA; mean age 65). AAs & women had lower intentions; AA lower self-efficacy and normative pressure; older respondents higher self-efficacy; secondary prevention higher normative pressure and behavioral beliefs. Males were higher and those with perceived side effects lower for all three reasoned action intention predictors. Non-event group: R2 intentions=0.41. Adherence was associated most strongly with attitudes. AAs were lower on all reasoned action intention predictors. CVD event group: R2 Intentions=0.20. Adherence was most strongly associated with attitudes and self-efficacy. No socio-demographic variable differentiated among intention predictors. **CONCLUSIONS:** Intentions and adherence were associated most strongly with behavioral, normative and self-efficacy beliefs and differed across demographic and prior event subgroups, suggesting potential to improve adherence using targeted messages based on reasoned action variables addressing subgroup specific beliefs. Intentions and adherence were predicted better for primary than secondary prevention, suggesting greater potential for TRA-based targeted messages for those without a previous CVD event.

PCV106

PREDICTORS OF MEDICATION ADHERENCE IN A HYPERTENSIVE POPULATION

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OBJECTIVES: The study aimed to assess predictors of medication adherence in a hypertensive population of Pakistan. **METHODS:** This descriptive study was shaped as a questionnaire-based cross sectional analysis. A prevalence based sample of 385 hypertensive patients was selected from 2 tertiary care hospitals. Hypertension Fact Questionnaire (HFQ), Drug Attitude Inventory (DAI-10) and European Quality of Life scale (EQ-5D) were used for data collection. Demographic and disease related information was also taken into account. SPSS versus 16.0 was used to compute descriptive analysis of patients' demographic and disease related information. The factors that were significantly associated with adherence were further assessed by binary logistic regression analysis. The analysis included only those parameters with p value ≤0.25 in Chi-square analysis. The power of independently related parameters and predictive models were expressed as odds ratio (OR) with 95% confidence intervals (CI). The statistical significance was set at 0.05. **RESULTS:** The mean age (SD) of the patients was 39.02 (6.596), with 68.8% males. The mean ± SD duration of hypertension was 3.01±0.939 years. Forty percent (n=154) had bachelor level of education with 34.8% (n=134) were working in private sector. The mean EQ-5D descriptive score was calculated 0.4674±0.28444 and EQ-Vas score 63.97±6.621. Mean knowledge and adherence scores were 8.03 ± 0.42 and -1.74 ±2.154 respectively. The created model showed a significant goodness of fit as the Omnibus Test of Model Coefficient was highly significant (Chi square = 10.983, p = 0.027, df = 4). Knowledge score had significant association (adjusted OR= 1.159, 95% CI = 1.004 – 1.339, P < 0.001) with medication adherence. **CONCLUSIONS:** From the results of our study, it is concluded that improved knowledge towards hypertension can result in better medication adherence. Patient education must be formalized and acknowledged as an official part of the health care system.

PCV107

CORRELATION OF PHYSICIAN-RATED ADHERENCE WITH THERAPEUTICAL OUTCOMES IN ANTIHYPERTENSIVE TREATMENT: POOLED ANALYSIS FINDINGS FROM SIX VALSARTAN STUDIES INCLUDING 15,583 AVAILABLE PATIENTS

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